DOCUMENT RESUME

ED 142 459 SO 010 122

AUTHOR Damico, Sandra B.; Watson, Kathryn J.
TITLE Peer Helping Relationships: A Study of Student Interactions in an Elementary Classroom. Research Monograph No. 18.
INSTITUTION Florida Univ., Gainesville. P. K. Yonge Lab. School.a
PUB DATE Jun 76
NOTE 77p.

EDRS PRICE MF-$0.83 HC-$4.67 Plus Postage.
DESCRIPTORS Classroom Environment; *Classroom Observation Techniques; Cross Age Teaching; *Educational Research; Elementary Education; Evaluation Methods; Field Studies; *Helping Relationship; Interaction Process Analysis; Laboratory Schools; *Peer Teaching; Statistical Data; Student Behavior; Student Characteristics; Student Evaluation; Student Teacher Relationship; Test Items

ABSTRACT

The premise that students are an untapped educational resource and that they provide teachers with a source of individualized instruction provided the impetus for this study. Researchers had two objectives: one, to determine the possibility of developing a typology of peer helping behavior within the classroom; and, two, if possible, to use this information to determine whether the extent of helping behavior related to school attitude, self-concept, peer social acceptance, and reading growth. Helping relationships are defined as either social or academic, teacher or student initiated. Third, fourth, and fifth grade students contained within the same classroom were subjects. Results showed that development of a typology is possible and that a relationship exists between peer helping behavior and school attitudes. This monograph explains the research methodology, describes classroom experiences, and summarizes results. Statistical tables, monitoring and evaluation forms, and instruments used in data collection are included. A bibliography furnishes references to material pertaining to social and psychological factors within the classroom. (KC)

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PEER HELPING RELATIONSHIPS:

A Study of Student Interactions in an Elementary Classroom

by

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and

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June, 1976

P. K. Yonge Laboratory School
College of Education
University of Florida
Gainesville

RESEARCH MONOGRAPH NO. 18

SP 010 122

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PREFACE

The P. K. Yonge Laboratory School's statement of philosophy and objectives contains a section entitled, "Professional Beliefs of the Faculty". The following is contained in that section:

> Committed to providing a program which will cause the School's students to become life-long learners and to furthering the School's mission in educational research and experimentation, faculty members regard themselves as learners-in-process. In many respects, teaching and learning are inseparable as pupils and their teachers learn together and pupils contribute to instructional processes!

Consistent with this belief, the School has for more than a decade been conducting programs in "helping relationships". The first such program involved a group of sixth graders, whose self-concepts were relatively weak, as assistants to teachers of younger children. Self-concepts of the helpers were enhanced by the program. Since then, the majority of the School's pupils have served as helpers of younger children at one time or another. Such involvement has seemed especially helpful to pupils who are not highly motivated or have special emotional, learning, or physical disabilities.

This study examines another kind of helping relationship which has been utilized extensively--that of involving pupils as helpers of other pupils within their own classroom. The reader will discover that results, both in the affective and cognitive domain, are very positive.

The faculty of P. K. Yonge Laboratory School invite others who are interested to join in additional investigations of these promising practices.

J. B. Hodges, Director
P. K. Yonge Laboratory School
and Professor of Education

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INTRODUCTION

This study had two objectives. The first was to determine whether it was possible to develop a typology descriptive of peer helping behavior within an elementary classroom. The second objective was to use the developed typology to describe classroom helping behavior and relate participation in it to measures of school attitude, social acceptance by peers, inferred self-concept as learner, professed self-concept, and growth in reading.

The typology was developed using microethnographic techniques. The researcher, in effect, looked at the classroom much as an anthropologist might look at an exotic culture. Patterns of regularities in behavior were looked for along with initiation of and responses to interactions from other class members. For this reason the developed typology lists a variety of peer interactions which would not normally be considered helping behavior. These were included, however, because they were important in contributing to the tone of the classroom which facilitated helping behavior among students.

This study was cooperatively designed and implemented by a classroom teacher and a researcher. The differing perspectives they brought to this study enriched the conceptions each held of the classroom, its activities, and the students within it. As a result of this experience, we feel that this approach to classroom research should be used more frequently.

This monograph is divided into four chapters. The first presents our purpose statement and the rationale for the study. Chapter II outlines the research questions and discusses the research methodology and instruments in some detail. Chapter III provides a rich description of life within the classroom including how helping behavior was encouraged and how the academic program was structured and monitored. The concluding chapter summarizes our findings. There are four appendixes. The first provides the typology of helping behavior developed as part of this study. The forms designed and used by the teacher in monitoring and evaluating student academic progress are next, followed by the statistical tables supportive of the results. The last appendix contains copies of the instruments used in data collection.

In brief, this study found that is was indeed possible to develop a series of categories descriptive of peer helping relationships within an elementary classroom. Using these categories, the behavior of the

students within a single classroom were studied. Several findings were of particular importance to educators. Those students who ranked high on helping behavior also ranked high on measures of school attitude, social acceptance by peers, inferred self-concept as learner, and professed self-concept. Also, growth in reading was astonishing. The class grew almost two grade equivalents in reading level between September and the end of May.

Academically capable females were ranked high on peer helping while among the males those highest in athletic ability were the frequent classroom helpers. Consistent with findings from other studies, males were found to interact with many of their peers while females confined most of their relationships (including helping) to one or two close friends. As a consequence of these behavior patterns, males had more interactions with cross-age and cross-race classmates than did females.

We would like to conclude this introduction with a few observations on the classroom that are not included other places in the text. These have to do with the utilization of space by students. Use of space within the classroom varied by students. While most students sought out quiet corners for work requiring concentration, there were three students who consistently preferred, regardless of assignment, to be physically removed from others while working. These students were not anti-social nor were they unpopular. They just liked to be tucked away in corners by themselves. Some students liked to sit at tables or in areas close to others. Groups of students also staked out particular locations within the room in which they preferred to work. Most notable of these was a group of girls who claimed the small room off of the regular classroom. This room had originally been a teacher's office, but the need for additional classroom space had pre-empted it. These girls guarded this room as jealously as any animal ever did his lair. When other students were assigned to work in the office, the girls paced up and down and kept checking the door waiting until the room was vacant and they could move back in. Students thus divided up the space within the classroom in their own idiosyncratic ways. The provision of areas in a room in which students may select either solitude or groups appears to be an important dimension of a classroom. This need may be even more important in rooms where the desks, which students once claimed as their own territory, have been removed.

As a final consideration, there are those students who display a great need for attention from the teacher. This attention may take the form of requests for academic help or approval of completed work. Students who fit this description are just as apt to be good students as poor ones. Many of these students seek help from peers only when it is impossible to get the teacher's attention. From other behaviors,

these students seem unsure of themselves and like the constant reassurance of the teacher that they are meeting expected standards. As the teacher in this study once remarked about one of the best students in the room, "If I turn around too quickly, I'm afraid I'll poke his eye out with my elbow!" He was always hovering at her side. Thus, it cannot be automatically assumed that the "good" students are the ones who will always be the most supportive in developing and maintaining a helping relationship program within a classroom. Students are individuals with individual needs. In the final analysis, that is what peer helping relationships are all about--to try to meet a variety of individual academic and social needs within a single classroom staffed by a single teacher.

We hope you find something valuable in the pages which follow.

CHAPTER I

PURPOSE AND RATIONALE

The Study

> *Anyone involved in education is very soon and very lastingly impressed with the extreme range of differences among normal children with respect to almost every major cognitive function. Unfortunately, school children are typically classified, and demands are made upon them, according to chronological age (which is only a physical definition of time); thus, the enormous individual differences among them are ignored.* (Snyder, 1972, p. 67)

This study was based on the proposition that students form a valuable, but generally untapped, educational resource within the classroom. To test this proposition, an ecological study of a self-contained classroom of eight-, nine-, and ten-year-olds was designed to: (1) define various techniques through which students offer help to and receive help from their peers; (2) identify the types of situations under which these different types of peer helping relationships are likely to occur; and (3) determine correlations between frequency of helping behavior and sociometric status, attitude toward school, and self-concept.

Evidence from several sources have converged to support the need for a study of this nature.

Rationale for the Study

There is more to school than meets the eye of the casual observer. In addition to meeting the formal requirements of the curriculum, students must also learn how to deal effectively with the social system. Consensus appears to occur early (Lippitt & Gold, 1959) in the school year on where each pupil falls in a status hierarchy within a classroom. And, these positions tend to be stable throughout the school year. At

the same time, evidence has accumulated (Cohen, 1972) that position within the classroom social system can have a profound effect upon the learning of individual students. A student's perception of his position within the classroom status hierarchy has been found to be a significant determinant of behavior, more so even than his actual sociometric position. This cognized position within the interpersonal social structure influences utilization of academic ability, self-concept, and attitude toward school (Schmuck, 1962; Schmuck, 1970).

Students at the two extremes in the status system receive differential responses from both peers and teachers. In one study, which focused upon the structural effects of the classroom on the mental health of students (Lippitt & Gold, 1959), teachers indicated that the amount of warmth received by a pupil from peers varied by social status with those at the top receiving the most positive affect. In the same study, observers noted that

> Teachers pay attention to the social behavior, rather than the performance behavior, of low status pupils more often than of high status pupils. . . . Low status boys tend to receive more criticism than their high status boy classmates; but low status girls receive more support. (Lippitt & Gold, 1959, p. 214)

The alienated student, at the bottom of the heap, is likely to respond to his low status by participating in classroom activities in inappropriate ways thus confirming the negative responses of others (self-fulfilling prophesy). The high status students, on the other hand, are likely to receive feedback which enhances their motivation to achieve.

Students of varying status thus experience the same classroom in widely differing ways. The room that may be warm and inviting to one student may be threatening to another. Compounding the problems associated with status are those of position within the classroom communication network. Studies (Cohen, 1972; Jackson & Lahaderne, 1967) have reported the extent to which communication within a classroom is dominated by the teacher, with more than 75 percent of this communication (Adams & Biddle, 1970) being directed to a small, centrally located group of pupils. Jackson (1967) in a study of flow of communication within four sixth grades, found that in each room there was a group of pupils who were almost invisible--they came close to having no interactions with the teacher. "For at least a few students, individual contact with the teacher is as rare as if they were seated in a class of a hundred or more pupils, even though there are actually only 30 or so classmates present" (Jackson & Lahaderne, 1967, p. 210).

Findings from these and other studies merge to indicate that those students who sit in the back of the classroom tend not to engage in question-answer exchanges with the teacher. At the same time, it has been found that those students who actively participate generally learn more than those who are passive. This comes as no surprise when studies on small-group behavior have repeatedly found that participating members are more accepted by others and benefit the most from the knowledge, skills, and abilities of the other group members. These findings suggest that means should be explored to provide opportunities within the classroom for students to engage in mutual exchange of information and ideas.

One successful approach to encouraging students to become actively involved in the educational process has been the institution of various types of peer tutoring programs. While initial programs had a tendency to use "good" students as tutors, the 1960's witnessed increased use of "poor" students in this capacity. It was found that through active involvement in helping another learn, tutors as well as tutees, demonstrated increases in academic achievement and at the same time evidenced more positive attitudes toward learning in general. A study of cross-age tutoring reported by Dillner, Lippitt, and Lohman (1971) indicated:

> Several factors contribute to the success of cross-age tutoring on the tutee. The tutor communicates more effectively with the younger child because he speaks the learner's language. The performance of the older child provides a more realistic level of aspiration for the learner than the skills and standards of the adults which seem beyond the learner's grasp. The older child is less likely to be perceived as an "authority figure" with its inhibiting effects on pupils who have had unfortunate experiences with authority. (p. 14)

But for all of its benefits there are several problems inherent in peer tutoring programs. Tutoring programs have all had in common the structuring of the peer-helping relationship by an adult. This process has included the selection, by an adult, of the skills to be taught, the pupil to receive this instruction, and the one to provide it. Such a program requires time to structure and coordinate its various components; time which may not be available to regular instructional personnel. And while these tutoring programs provide valuable remedial service to a number of pupils, because of their very nature, they cannot hope to reach all those who need personalized attention. As an additional consideration, tutoring programs tend to be adjunct

to the regular classroom. This fails to take into consideration the growing body of research on the relationship between the social role played by a student in a classroom and his learning behavior.

Open classrooms have been hailed as an approach to increasing student interaction and involvement in the learning process. Unfortunately, many such classrooms are merely rearrangements of physical space with student roles having remained constant. The focus in these programs has not been upon the academic advantages which may be accrued through increased student interaction rates or the encouragement of spontaneous helping relationships. As a consequence, research which has been conducted on the open classroom has generally limited itself to comparisons of pupil achievement in open and traditionally structured rooms. Out of a discussion on nongraded classrooms comes an observation which seems apt here:

> One searches in vain among countless reports on the nongraded school for any sophisticated examination of cross-age interaction, or even for any recognition of its educational potential. Reliable evidence on the academic effects is also lacking. (Elder, 1972, p. 335)

It appeared to the P. K. Yonge Laboratory School that teacher encouragement and support of helping relationships among students would be an efficient and effective method of individualizing instruction whether in a self-contained or open-space classroom. Additionally, the active involvement of students in this type of program should, according to theory, act as a stimulus to learning. For the purpose of this study, helping relationships are defined as the giving or receiving of assistance, either academic or social. These relationships may be pupil-pupil or pupil-teacher interactions and may be spontaneously initiated by the pupil or engaged in at the suggestion of the teacher.

CHAPTER II

RESEARCH METHODS

This chapter discusses the questions which guided this research on peer helping relationships within an elementary classroom. It also provides information on the research design, the sample, data collection and analysis.

Research Questions

The questions which this study was formulated to answer are:

1. Is it possible to develop a typology descriptive of helping relationships within an elementary classroom?

2. What types of helping behavior are most common among third, fourth, and fifth grade pupils.

3. Within an elementary classroom, are there any differences between the helping behavior of males and females?

4. Is extent of engagement in helping behavior related to school attitude, social acceptance by peers, inferred self-concept as learner, or professed self-concept?

5. Is extent of participation in peer helping stable throughout the course of the school year?

6. Will there be any changes between the beginning and end of the school year in school attitude, social acceptance by peers, inferred self-concept as learner, or professed self-concept?

7. Will there be any interactions between grade and sex and school attitude, social acceptance by peers, inferred self-concept as learner, or professed self-concept?

8. Will sibling order of the student be related to extent of participation in helping relationships?

The Design

An exploratory field study was selected as the most appropriate method to answer the preceding research questions because they focused upon developing descriptions of peer interactions which were then to be related to various attitudinal and self-concept measures. The study of a single classroom, even over an extended period of time, does not provide the same certainty in interpretation of results as that obtained from an experimental design; nevertheless, this research method can provide an analytic description of the complex interactions within a social setting; i.e., a classroom. McCall and Simmons (1969) have stated that such a description:

> (1) employs the concepts, propositions, and empirical generalizations of a body of scientific theory as the basic guide in analysis and reporting, (2) employs thorough and systematic collection, classification, and reporting of facts, and (3) generates new empirical generalizations (and perhaps concepts and propositions as well) based on these data. (p. 3)

In this vein, this study of informal peer helping relationships within an elementary classroom was guided by the following considerations: (1) pupils are a valuable, untapped educational resource within classrooms, (2) participant observation techniques combined with interviews and collection of attitudinal and self-concept measures are a sound method of systematic data collection, and (3) the state-of-the-art knowledge about peer helping relationships within classrooms is not sufficiently sophisticated to have warranted an experimental study. Additionally, it was felt that at this time educators would be more interested in a detailed account of what happened within a classroom when a teacher tried to instill in her students the values of helping each other--how did she do this and what happened to her role as teacher and the roles of the individual students--than they would be in an experimental study of smaller scope.

Subjects and Setting

This study was conducted in a self-contained classroom of 30 students aged eight through ten at the P. K. Yonge Laboratory School (University of Florida, Gainesville). The room was without the traditional desks and chairs found in most elementary classrooms.

Instead, it was furnished with an assortment of tables and chairs along with two couches and a variety of well worn, stuffed chairs. This furniture was arranged to provide space for students to work individually or in small groups.

A demographic breakdown of the students in the room indicated that 53 percent of them were in the fifth grade (seven males and nine females), 16 percent fourth grade (four males, one female), and 30 percent third grade (five males and four females). Fourth graders were thus under-represented in this class. Twenty-seven percent of the class members were black (eight students).

Socioeconomic status was determined through application of Warner's Revised Scale for Rating Occupations (Warner, 1949). This scale takes into account source of income as well as degree of skill and the assigned prestige value of a job. Using Warner's seven-point scale, students in this class were distributed across occupational class lines in the following manner:

	Occupation Level	Percent of Students
1	Professionals	50
2	Semi-professionals	17
3	Clerks & kindred workers	20
4	Skilled workers	0
5	Service & protective workers	13
6	Semi-skilled workers	0
7	Unskilled workers	0

Because of the homogeneous nature of this class, socioeconomic status was not used in analysis of data.

Data Collection

Based on the model developed by Smith and Geoffrey (1968) the present research was designed as a cooperative effort between researcher and classroom teacher. Both participated in the formulation of the research plan. Once a month throughout the school year the teacher was provided with a substitute so that the two could meet and discuss the study's progress. Analysis and interpretation of data occurred during these meetings. Both raised questions about the relationships among students and their meanings in the context of the classroom environment.

The researcher was present in the classroom on the first day of school, and was introduced to the students as someone who was interested in describing their activities. Because P. K. Yonge is a department of the College of Education, University of Florida, the students were accustomed to outsiders and quickly accepted this presence.

Data on helping behaviors were collected using observation techniques. Other data were collected using the instruments to be described.

Observations

Microethnographic techniques were used to record student involvement in a variety of peer helping relationships. The researcher spent time in the single classroom observing and recording patterns of student interactions with a focus upon peer helping relationships. Initially it had been anticipated that an observation form would be developed to record the peer interactions within the classroom. As the narrative description of the ongoing life of the classroom grew, it became increasingly clear that valuable insights into student behaviors and motivations could easily be lost through utilization of a structured instrument. However, because one of the objectives of this study was to categorize helping behaviors and rank students' involvement in them, a listing of student interactions was developed from the observations and translated into a check sheet. Thus, each student's interactions were able to be plotted.

Through this method, helping relationships were broken down into two broad categories: (1) seeking help from peers, and (2) providing help to peers. Within each of these categories help in academic and nonacademic areas of classroom life were differentiated. Categories were also added to reflect the behavior of those students who consistently by-passed peers and sought academic help and approval from the teacher. Sample items included: asks a student for clarification or information about a class assignment; volunteers academic help to another student; and, helps other students with academic work at their request. Additionally, all student interactions were coded as being either same-sex or cross-sex, same-age or cross-age, and same-race or cross-race. A copy of the complete typology of helping behaviors is contained in Appendix A.

Instruments

Students completed the Ohio Social Acceptance Scale (Raths, 1943), the Student Attitude Scale - elementary form (Damico, Hines, & Northrop, 1975), and the shortened form of the Self-Esteem Inventory (Coopersmith, 1967). The teacher completed the Florida Key (Purkey, Cage, & Graves, 1973) on each of the pupils. Each of these instruments is briefly described below:

1. The Ohio Social Acceptance Scale was used as a technique for identifying degree of social acceptance of each student by classmates. The instrument contains five paragraphs describing degrees of friendship on a continuum from "My very, very best friend" to "Dislike them." Each student was presented with a copy of the five descriptions and a class roll. They were asked to assign a number representing one of these descriptive paragraphs next to each student's name as it appeared on the role. Mean scores were derived for each student; scores ranged between one and five with the higher score being the more positive.

2. The Student Attitude Scale was initially developed as a part of the Kellogg-Florida Leadership Project; the form used in this project was developed and validated for use with elementary pupils by research staff at P. K. Yonge. It presents students with fifty-eight negatively stated items covering attitudes toward self, other pupils, teachers, the school, and the principal. Examples of types of questions contained in this instrument include, "I feel I am left out of most things at school" or "Some of the teachers favor girls more than boys". Students respond to each of these fifty-eight statements on a three-point scale as "mostly true", "sometimes true/sometimes false", or "mostly false" with a high score indicating a positive attitude toward school.

3. The Self-Esteem Inventory (shortened form) was used as a self-report on student self-concept. This instrument consists of 25 items of either positive or negative substantive meaning. The respondent checks either "like me" or "not like me" to each of these. This instrument has been used in numerous studies including some on tutoring programs. Examples of items include: "I often wish I were someone else" or "My parents usually consider my feelings".

4. The Florida Key is a measure of inferred learner self-concept completed on each pupil by the teacher. The instrument consists of eighteen descriptions of classroom behaviors such as "speaks up for his own ideas?" or "gets along with other students?" The teacher rates each student according to the frequency with which the specified behaviors have been observed. The Florida Key is

constructed on a six-point scale with five being the score of highest frequency. The higher the total score the higher the inferred learner self-concept of the student.

5. Each student's sibling order was determined through interviews. Each child was individually asked whether he had any brothers or sisters, how many, and their ages. From this it was possible to determine the sibling order of the children within the class.

Limitations of the Study

The reader should be aware of the limitations of this study due to the design and data collection procedures used.

1. This is an exploratory field study in which no attempt was made to manipulate any of the conditions affecting helping behavior within the classroom. The teacher verbally and nonverbally supported helping behavior, but this was not controlled in manner.

2. Only one class of students was used for this study. While they were studied in depth for an entire school year, it is possible that the results have been influenced by the particular students who ended up in this classroom and their interactions with the teacher. Replication of results may be called for especially in regard to use of the typology of helping behavior developed as a part of this study.

3. While the P. K. Yonge Laboratory School has made efforts to obtain a representative student population, pupils in the classroom were fairly homogeneous in social class even though twenty-eight percent of them were black.

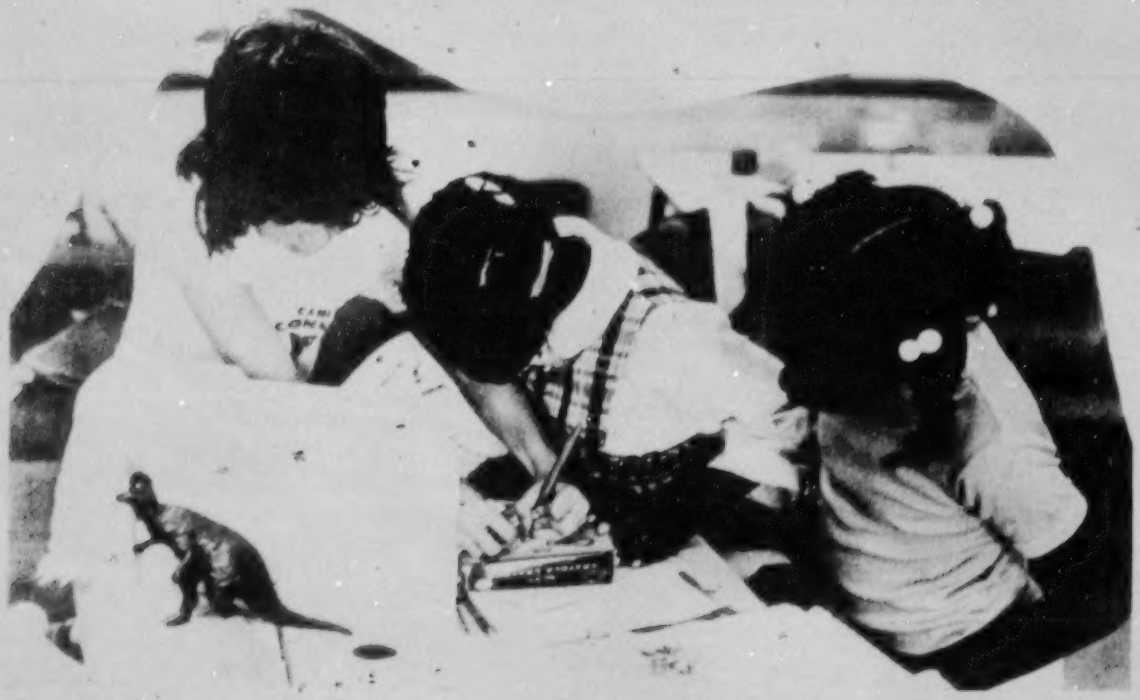
4. Only a limited number of dependent variables were selected for study. It is possible that others would be more strongly related to helping behavior than those included in this monograph.

CHAPTER III

HELPING RELATIONSHIPS IN AN ELEMENTARY CLASSROOM

> *The people who are succeeding in our world are able to become involved with other human beings in responsible relationships. They have human involvement in their lives; they have people.*
> (Glasser, 1969, p. 9)

This chapter will take you on a tour of an elementary classroom where helping was an integral and natural part of each day. We will introduce you to the room, its curriculum, and the philosophy which undergirded it. For ease in reading, this chapter has been divided into three sections. The first will provide a description of the classroom ritual--the sequence of behaviors and daily events which comprised life within the room. The second section will provide information on the encouragement and use of helping behavior and how this was reflected in the organization and monitoring of the academic portion of the program. The final section contains a case study to indicate what happened to a real student within this room.



In all likelihood, the reader grew up and attended school where the dictum "do your own work" was law. If you failed to obey, you were considered intellectually incapable and somehow slightly dishonest. If you asked anyone but the teacher for help or made a comment to any of your classmates, you were labeled a "talker"; someone whom the teacher needed to keep an "eye" on. Perhaps helping was permissible in social areas (at recess, in the cafeteria, etc.), but in the academic arena you were to be evaluated strictly on your own work. Expression of spontaneous, mutual helping resulted in having your assigned seat changed--usually to either the front or back of the room.

The "climate" of schools has changed somewhat from the era just described, but in many places change has been slight and fraught with uncertainty. The question of balance between too much structure and too much license is not always easy to resolve. We don't claim to have the answer for you, nor can we give you a prescription which if closely followed will result in a "classroom based upon peer helping relationships". Every teacher has personal boundaries which determine the amount of student noise and movement which is comfortable: this level has to be taken into consideration when structuring a classroom. All we can do is describe the helping relationship-based program developed by one teacher and provide an analysis of what occurred as a consequence.

What we really hope you find in this chapter, however, is not just a "description" of the classroom, but rather the "spirit" so vital to the success of this type of program. In order to have a classroom based upon peer helping, you must <u>want</u> it and <u>value</u> it--your students will know if you're faking.

Class Ritual

Every classroom develops what we call a "ritual". By this we mean patterns of customary behavior which occur repeatedly in a sequence. The classroom ritual is not really as ominous as this definition makes it seem. It is just a recognition of the fact that every teacher has a mental picture of how the activities within the room should be organized and flow. All classrooms develop these patterns over time. Ritualized behavior provides a structural framework which frees students and teacher to direct their attention to the "content" of classroom activities. It cannot be stated too emphatically, however, that rituals should not become so rigid that they limit behavioral options. Change from the normal routine is occasionally mentally refreshing!

Exactly what we mean by classroom ritual should be evident after reading a description of the daily sequence of activities which occurred within this room.

Prior to 8:30 in the morning, which was the official opening of school, students could come into the classroom and begin work on assignments which were contained in their individual folders, play outside, work in small groups, or talk to the teacher. In tempo, this was usually a quiet, peaceful time.

8:30-9:00 All students came together in the area of the room that had been designated the "Group Area" (see Fig. 1, p. 17). Several different things occurred during this period (though not necessarily all on the same day).

1. The teacher reiterated activities planned for the day including reminders if outside activities such as art, music, or sports had been scheduled.

2. Students shared with each other. Physical objects brought from home were, of course, frequently shared. But intangible things, such as awards or feelings, were also shared by the students. It was the process of sharing with others which was stressed, not the object. (It was noted that the amount of sharing of feelings increased over the year as students gained a sense of security in the group.)

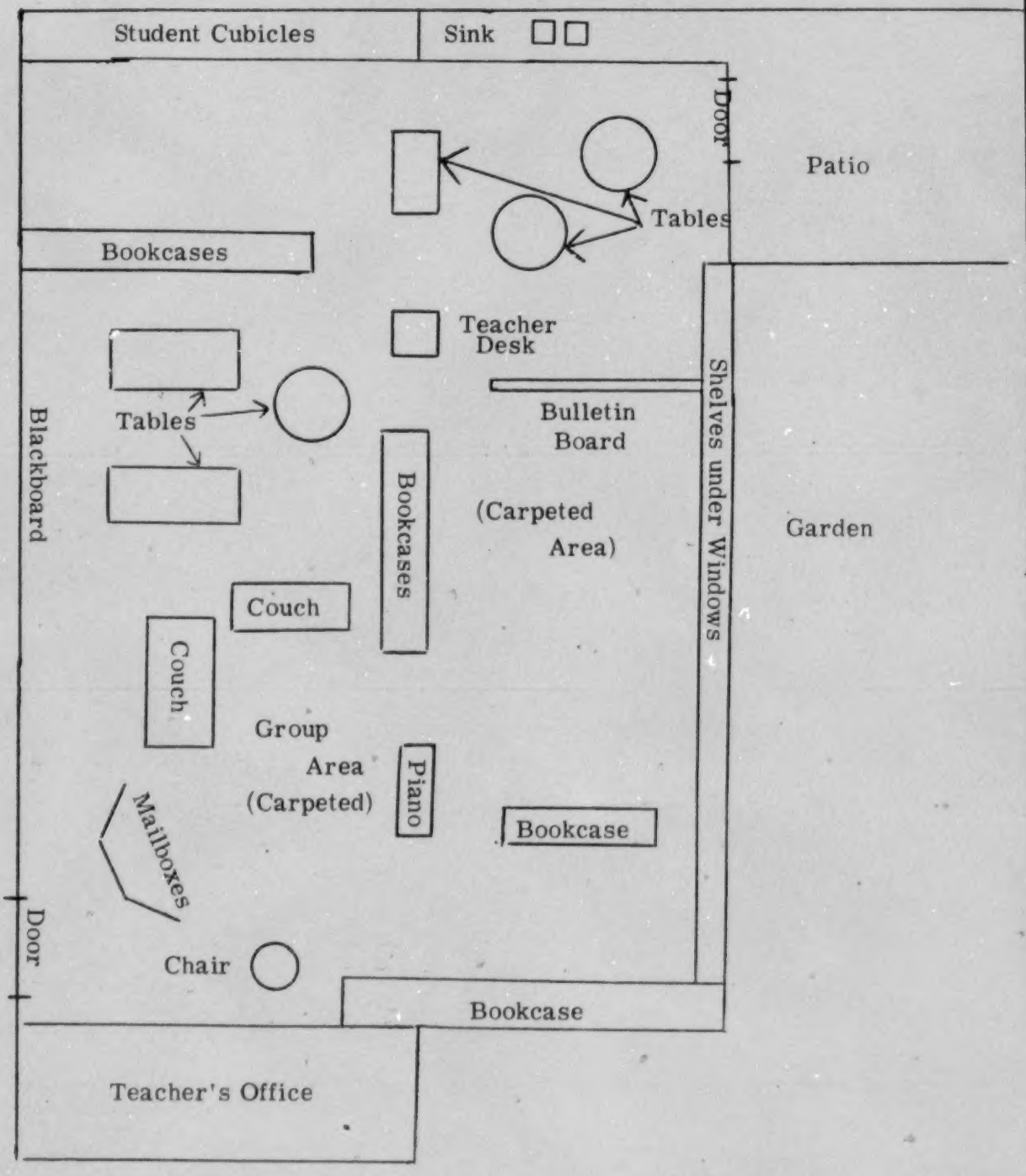


Fig. 1. Classroom floor plan.

3. Talk was directed toward individual and group responsibilities. Students, over time, began to discuss and make generalized statements about behavior which needed to be modified, i.e., the room has become too messy, inappropriate behavior was occurring after lunch.

Briefly, the rationale behind "Group Time" was to promote a sense of belonging within a group. This was seen as especially important for children in a classroom which stressed individualization in the instructional program. Children needed to learn how to be members of a group as well as to assume individual responsibility.

9:00-11:50 The morning work period occurred during this time with a twenty minute play break around 10:00. Work assignments for students, tailored to meet their individual needs, had been placed in individual folders. Students went to their folders and began work on the assignments they contained. During the morning, students worked either individually or in small groups--this decision was based partly on the personality of the child and partly on the particular assignment being worked on. During this time of day there was a constant low level of noise as students talked quietly together and moved from place to place within the room.

Several activities were scheduled to be completed during the morning work period:

1. Every day students had to write a composition, either practical (letters, etc.) or imaginative.

2. Math was done daily. The math activities varied from doing an individualized math kit block, a math game, or some other assigned work. (Students within this class ranged in math ability from kindergarten through seventh grade levels.)

3. Spelling--Each student had an assigned book containing spelling words which were selected according to his level of ability. In addition, each student developed his own list of spelling words to learn which had been identified while writing the daily composition.

4. Cursive practice was provided for those students who needed it. Because there were students in grades 3, 4, and 5 in the class, the writing levels varied greatly.

5. Choice Time--Upon completing scheduled assignments students could select a learning center, art, word work, or viewing films for the remainder of the morning.

Also occurring during this morning block of time: music three times a week, art once a week, and sports three times a week, all with a specialist in the area. Occasionally the teacher accompanied the students to the activity; sometimes she remained in the classroom and worked on setting it up for the remainder of the day.

11:50-12:00 At this time the teacher called the students together for Group Time. This provided an opportunity to see that everyone had either a meal ticket or a lunch box. The purpose of this Group Time was to permit the class to be pulled together as a group must before leaving the room for lunch.

12:00-12:30 At noon the class began to walk to the cafeteria. They did not line up. Instead they drifted down in small cliques. The teacher accompanied them to lunch and ate with them.

As some of the faster students finished eating, they went outside onto the patio which extended across the front of the cafeteria. Here they sat in small groups and chatted with their friends.

12:30-12:35 The class walked back toward the room. Students were not permitted to go back to the class before this time; they went as a group, but again in small groupings.

12:35-1:50 This was the quiet time of the day. Students who were reading at grade level did an SRA assignment at least three times a week. Other days they read on their own, went to the library, or completed assignments prescribed by the teacher. Each of these students talked individually with the teacher about his reading at least once a week.

Those students who were reading below grade level were assigned to read at least three pages every day to the teacher or a helping teacher. The children charted their own progress in reading.

If reading was completed before the end of this time period, students were free to do "catch up" work--complete those activities that had not been finished during the morning. Occasionally speakers came in during the later part of the afternoon.

During the afternoon time period there was generally a fifteen minute play break.

1:50-2:00 — The group was called together for the last time during the day. Students were reminded of things that needed to be done in the evening or to be brought to school the following day. Any other final announcements were made at this time. Students then picked up chairs and placed them on table tops, picked up books or other materials and generally straightened up the room. Students were reminded to get their coats, lunch boxes, etc. This was a time to evaluate the day, share ups and downs, discuss events of interest to the class.

2:00- — The teacher walked with the students down to the drive to wait for them to be picked up by their parents. Most students had gone by 2:15 though occasionally it was 2:30 before the last of them left.

The Encouragement of Peer Helping Behavior and the Academic Program

As described elsewhere, this program had no formal sequence of activities developed prior to the opening of school which were to be followed by the classroom teacher as a guide in facilitating peer helping behavior. Rather, the teacher held a philosophy which valued mutual helping among students. Consequently, she verbally and non-verbally encouraged and rewarded helping behavior as opportunities presented themselves. There is no magic involved in getting this type of program to work, but conviction is necessary!

The peer helping relationship approach was selected and developed because it provided a learning environment in which the teacher's academic and social goals for pupils could be realized. She was freed to individualize instruction while at the same time pupils could assume responsibility and see themselves as competent. Indeed, it was soon evident that the classroom could not function smoothly without the active assistance of the students.

Helping behavior among pupils does not occur in a vacuum. Anyone who has spent time in classrooms can attest to how adept students are in determining what behaviors are expected and rewarded by their teachers. Most pupils readily supply these behaviors. If expected behaviors are different from those experienced in previous classrooms, it will take pupils a little longer to determine appropriate responses--but not much longer.

A note of caution seems appropriate at this juncture. If teachers expect behaviors with which pupils are unfamiliar, skill training may be called for. For instance, the skills necessary to successfully work in small groups are not innate. Those who have never experienced this type of learning situation are not going to be completely successful the first time they try. This does not mean that cooperative, small-group skills are not valuable. Rather than avoiding this type of instructional situation, the teacher, taking lack of experience into account, will develop a series of small-group activities ranging from simple to complex which teach necessary skills. The same is true of peer helping behavior. Those students who have never actively helped another in a classroom will be unsure of themselves. Some will interpret "helping" to mean that they need do none of their own work. Others may feel that the freedom to move about the room and talk with classmates is a license to have a good time without seriously attacking their academic assignments. Such abuses are not indicators that students are incapable of responsibly helping others. Instead, education is called for.

In this particular classroom the teacher used Group Time to get students to begin to think about "helping". From the beginning of the year, she expressed approval of this behavior and led group discussions of ways in which pupils could help one another. Students learned that everyone could help--not just the academically capable. For example, one student might be excellent in math and another in reading; help was also needed in athletic skills, getting a project organized, or planning a class party. A whole range of skills are needed for a group to function well and it is rare for one person to possess them all in equal measure. Not only were these ideas espoused by the teacher and discussed by class members, but their expression was openly praised. As might be predicted, students became very familiar with helping others and by the end of the school year had developed quite sophisticated helping skills. These skills were extended to the point that a number of pupils were able to help others with behavior problems or difficulties in interpersonal communications.

The arrangement of furniture within the room may have helped facilitate helping behavior. There were many corners where students could get off by themselves or with a few others to work on assignments (see Fig. 1). The furniture, however, did not remain fixed. We have just provided you with a glimpse of its arrangement at one point in the school year. Teacher and students cooperatively rearranged it several times throughout the year to meet changing needs. The Group Area always remained!

Within a classroom an emphasis upon helping relationships implies more than an approach to academic materials. There is a shift in emphasis in the relationships of classmates to each other and the teacher. Cooperation instead of competition must predominate. To be successful, therefore, the teacher must create a climate which engenders caring, sharing, and a sense of belonging on the part of each class member. Within this type of framework, the teacher can educate.

To be specific as to how an academic program functions within this type of environment, we would like to describe the daily processes and procedures used.

The curriculum was individualized by the teacher who looked carefully at each child and his needs.. Measures were taken using the Slosson, teacher-made math and reading tests, the Botel analysis of spelling level, and teacher observation. On the basis of these measures

and observations, learning prescriptions were worked out for each child and he was placed in materials commensurate with his level. He was also able to choose materials to work on from the variety demonstrated to him by the teacher; these materials were at his level or just enough above it to challenge but not frustrate him.

Diagnosing a child's needs is a sensitive, ongoing process. The child is constantly learning and growing, and thus needs to be involved in a flexible program which allows for this growth. Diagnosis nas to be individualized. Even if two students start out at the same point, they will move at differing speeds through the various subjects. In a continuous progress system, no child is pigeon-holed or labeled. Every child learns at his own rate and proceeds at his own speed.

Each day general responsibilities were written on the board. These included the activities and requirements for the day. For instance, Group Time would be listed, also math, writing, two centers, special activities, etc. (See Class Ritual for a complete description.) Within the framework of these general responsibilities, each child worked on his own assignments which he received by going to his folder and reading the checklist filled out by the teacher. (See sample checklist in Appendix B.)

For example:

Alice would:

- do an assignment on "prime numbers" in her sixth grade level math book
- write a two-page story for the classroom weekly newspaper
- do the dictionary center
- do the metric center
- read in her book; do her BE A BETTER READER assignment

while at the same time Mark would:

- complete a task card on regrouping in addition
- work on his cursive letters by copying sentences from his task booklet
- do a place value game at the math center
- do the contractions center
- read aloud to another student from his text

This example illustrates how hetrogeneous the ability levels were within the room. Specifically, reading levels, in grade equivalents, ranged from .2 to 9.0 at the beginning of the school year. To have provided all pupils with the same assignments would obviously have been inappropriate.

In addition to their individual assignments, pupils were frequently provided opportunities to work in small groups. This occurred, however, only whenever there were several pupils who needed work in the same area. There might be a group of five working on review of capitalization while at the same time a group of six would be working on multiplication and division facts.

It should be obvious by now that not only were assignments individualized, but so was time. After Group Time a student would go over his work assignments for the day and decide the order in which he wanted to complete them. One would decide to do math first while another was busy with spelling or writing. Students were held responsible for the completion of their assignments--not the order in which they were completed.

As they finished their assignments, students placed them in their work folders and at the end of the day placed the folder in the work basket by the door. Every day the teacher reviewed each child's work, his checklist, and his evaluation of the day and wrote something about him. (See copies of all these in Appendix B.) She provided praise, support, instruction, or some other form of communication to let the child know that she had read and reviewed his work.

Parents were kept informed through weekly evaluations. These evaluations went home each Friday and were returned on Monday. This provided a continuing dialogue between teacher and parent on the child's academic and social participation at school. Responses from parents to teacher provided clues as to events at home which might cause problems at school. At midterm the teacher wrote a three-page evaluation of each pupil which was shared with parents in individual conferences, which generally lasted about an hour. Also, the teacher wrote notes of praise or concern as occasion demanded.

Below is a listing of comments by the teacher in response to the question "What should another teacher know before adopting a similar approach to personalization of instruction?"

It's worth it.

It demands a lot of time for organization.

Start slowly until you get your feet on the ground.

Involve parents.

Work hard to become a good diagnostician--be sensitive to each child's unique talents and needs.

If the child is working at his level in materials which he can do and finds interesting, and if you demonstrate trust in him, he will work hard and not tend to be a behavior problem--he will want to succeed.

A program such as this frees the teacher to work with individuals and small groups.

Children helping other children leads them to develop caring, responsibility, and engenders trust.

Case Study

During the course of the school year dramatic changes (beyond expected norms) were noted in several of the students. A sample case history is provided below as illustration. This is not an hypothetical student; the behaviors described really occurred.

Teachers should be cautioned not to expect all "problem" students to magically change, especially overnight, when placed in a classroom which emphasizes peer helping relationships. However, we do know that the ways in which we see ourselves and feel that others see us influences how we behave. As Snyder (1972, p. 55) has stated, "the learner's awareness, what he thinks and feels, is what primarily guides, controls, and regulates his performance." Participation in a classroom which encourages peer helping is one way of providing students with opportunities to see themselves in positive, helpful ways. For some, the opportunity to provide meaningful help to another may be a "first".

Sterling

Sterling was a nine-year-old white male who had experienced continuing difficulties with school life. He demonstrated minor perceptual-motor problems. His writing was large and irregular. His left-right discrimination was underdeveloped. His concentration span was extremely limited; he just "couldn't" sit in one place for any length of time. When excited or angry, his speech and movements became erratic, almost spasmodic. He was a ready scapegoat, often mocked by his classmates.

Thoroughly indoctrinated by a failure cycle he couldn't seem to escape, he doubted his own abilities as well as the ability of others to like him and want to be his friend. His peers had picked up on his self-deprecation and reinforced his negative feelings about himself. During the first month in our class, he took apart the lock on the door three times and left it lying on the sidewalk--perhaps this is a metaphor for his daily interactions with the class.

Described variously as a "slow learner", and "incorrigible", a "disturbed child", Sterling was indeed viewed as a "troublemaker". His school record was peppered with notes about his assaults on school property and his offensive anti-social behavior. By the time he entered our class he was connected with the deaths of several class pets--but he "didn't mean to squeeze the gerbil so hard", and "didn't

know that the gate had crushed the rabbit." He always maintained his innocence even when confronted with the facts. He could not assume responsibility for his own behavior.

His record indicated that he was a child who couldn't cope with the daily interactions of a school day. He was disruptive at every opportunity. During music class he jangled, banged, and abused his instrument while the class was supposed to listen to the instructor. During P. E. class he would scoop up the ball from a team member and run out of bounds with it, sometimes all the way back to the classroom. His behaviors seemed to say, LOOK AT ME, LOOK AT ME--I'M HERE TOO! Unfortunately his actions brought on more negative attention and served to place him even lower in the estimation of his classmates. They viewed him as a "loser". Sterling needed to get positive feedback--but he needed to earn it from his peers. He needed to realize that he had worth as an individual and that he could accomplish many things. Unfortunately, his home life was not conducive to arousing these feelings.

In working with this child, the teacher attempted to concentrate on the things that Sterling could do. He expressed an interest in working with audio-visual equipment and had a great deal of mechanical ability. Daily, the teacher set up goals with Sterling--if he accomplished them he was able to spend time down in the audio-visual room. As soon as he began working without continuous teacher intervention, he was allowed to devise some audio-visual projects within the classroom. He enhanced his report writing skills by working on a project on the Everglades incorporating slides and films. He personally developed a tape/slide presentation about dissecting the human brain as a follow-up to a presentation by a brain surgeon who had visited the room; on his own initiative he invited the School's Director to view this presentation. The Director's willingness to spend time with Sterling and his genuine praise of the project further enhanced Sterling's growth of a positive self-concept.

As his self-image began to improve, Sterling started to become involved in the daily workings of the group. He devised a plan for reporting on field trips using photographs and tapes. He became seen as an "expert" with audio-visual equipment and began holding sessions for other students on how to work with it. In response, his classmates began to help him with his math and writing. He began to communicate more freely with members of the class and these attempts were rewarded. He saw the value of applying his energies to school projects. With each new success, his stature in the classroom rose and rose, and as it did, he became a happier, more productive individual. He had moved out of a "failure syndrome".

By the time Sterling left the class, his reading ability had matured by 2.8 years, his math skills were on grade level, and he liked himself much more as a person. It is significant that in a letter at the end of the year, he wrote to the teacher, "Thank you for believing in me and helping me learn how much other people can help you. I won't ever forget." He was well on the way to becoming a "winner"!

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CHAPTER IV

RESULTS

We've completed the tour of life within the classroom and told you why we value this form of education for children. Now, what does it all mean?

At the beginning of Chapter II we defined eight research questions which were to guide our inquiry as we examined peer helping relationships within an elementary classroom. This chapter will present the answers to these questions.

1. IS IT POSSIBLE TO DEVELOP A TYPOLOGY DESCRIPTIVE OF HELPING RELATIONSHIPS WITHIN AN ELEMENTARY CLASSROOM?

Following the procedures described in the chapter on research methods, observations of student interactions were recorded. An analysis of these narrative-style observations yielded a listing of helping behaviors and other frequent types of classroom peer interactions. These are listed in Appendix A. Thirteen peer helping relationships were noted. Students requested help from peers in three situations: when they (1) needed help with a specific academic problem; (2) needed clarification of an assignment, or, (3) needed a pen, pencil, etc. Students provided help spontaneously, at the request of another student, or upon the request of the teacher. The teacher was also involved in providing academic or clarification assistance to pupils. In this particular classroom the majority of these teacher-pupil relationships were on a one-to-one basis or in small groups of three to five.

A variety of peer relationships and teacher-pupil relationships, other than those of a strictly helping nature, were also recorded. These interactions were included because they provided a broader framework in which to examine the roles students occupied within the classroom.

2. WHAT TYPES OF HELPING BEHAVIOR ARE MOST COMMON AMONG THIRD, FOURTH, AND FIFTH GRADE PUPILS?

A frequency count of the interactions among students within the room revealed that the three most commonly reported student behaviors

were: working alone, but at a location close to other student(s); interacting socially with those students sitting near while working on own assignments or projects; and, separating self from other students to work. While these three behaviors have little to do with helping per se, they do give some of the flavor of the classroom. It was casual and relaxed with the majority of the students busily engaged in completing their assignments. At the same time, there was a low hum of noise in the room as students carried on subdued conversations or made casual remarks as they worked.

Also having a high frequency of occurrence was "works cooperatively in a group on a project." This classroom was structured so that there were many opportunities for these types of behaviors to occur; all students had at least several of them recorded beside their name. Other instances of especially high helping were recorded in the following situations: (1) helps another student with academic work/ impossible to tell who initiated the interaction; (2) asks another student for academic help; (3) helps other students with their academic work at their request; and, (4) asks another student for clarification of an assignment.

3. WITHIN AN ELEMENTARY CLASSROOM, ARE THERE ANY DIFFERENCES BETWEEN THE HELPING BEHAVIOR OF MALES AND FEMALES?

All pupil-pupil observations were categorized as being either same-sex or cross-sex, same-age or cross-age, and same-race or cross-race. An examination of the tabulations of peer interactions revealed that there were two distinct social systems operating within the room. These two systems developed not along age or racial lines but upon sexual differences.

There were no recorded instances of spontaneous cross-sex academic helping behavior. Except for small, social courtesies such as an occasional loaning of paper or sharpening of pencils, all cross-sex helping was instigated by the teacher. While there never appeared to be any hesitancy in giving or receiving help from someone of the opposite sex, the fact that this form of helping relationships never occurred spontaneously was a mark of the clear division between the male and female social systems. The one exception to this rule involved a girl confined to a wheelchair. Boys, as well as girls, frequently volunteered to help her; most commonly this help took the form of fetching books, pens, or paper and pushing the wheelchair to lunch or the library. Even with this girl, however, males provided academic help only when initiated by the teacher.

Summaries of the observational data code sheets were used to explore further differences between the peer interaction patterns of males and females. Within each sex, the recorded rates of peer interactions were high. However, there were some sex differences in the nature of these interactions. Most males interacted with a wide range of classmates--between five and six other males. Females, on the other hand, tended to limit themselves to close friendships with one or two other girls and to have little to do with the remaining members of their sex within the room. Further analyses of these data revealed that girls were more likely than boys to limit themselves to those of their own age and own race.

Two reasons probably account for the significantly larger amount of cross-race interactions recorded for males: (1) social composition of the class, and (2) interaction patterns common to males. There were only three black females in the room: two were third graders and best friends while the other, a fourth grader, came close to being an isolate. Because there were more black males than females in the room, boys had greater opportunity to interact with cross-race peers. Thus, opportunity, combined with the tendency for boys to interact with a larger number of classmates, probably accounts for this finding rather than discrimination on the part of the girls. Within each sex grouping, the same types and frequencies of helping behavior were recorded.

4. IS EXTENT OF ENGAGEMENT IN HELPING BEHAVIOR RELATED TO SCHOOL ATTITUDE, SOCIAL ACCEPTANCE BY PEERS, INFERRED SELF-CONCEPT AS LEARNER, OR PROFESSED SELF-CONCEPT?

Given the existence of two autonomous social systems within the room, students were ranked separately by sex on helping behavior. Helping behavior was defined as social as well as academic helping to avoid discriminating against those students who were less academically capable.

Students' scores on the school attitude, social acceptance, inferred self-concept as learner, and professed self-concept measures were also ranked from high to low. A Kendall's Coefficient of Concordance, W was calculated to determine the relationship among these rankings (see Tables 1 and 2 in Appendix C). If a student's ranking on helping and the other measures were similar, a statistically significant relationship would be discovered. This in fact occurred for both males and females. In both instances, the relationship between the rankings on helping and the other measures was statistically significant at the .01 level; that is, in only one out of a hundred instances would these

particular rankings have occurred by chance rather than because they were related to each other. We can thus be fairly confident that those students who displayed high levels of helping behavior also had positive attitudes toward school, were well liked by peers, had a positive global self-concept and were seen by the teacher as having a positive concept of themselves as learner.

An interesting sex difference was noted in the rankings. The females who were especially high in helping behavior were also high in academic ability and could be described as "mature". The males who were high on helping were not exceptionally bright, but were extremely athletic. Since helping tended to be confined to the same sex, these differences may reflect varying valuing systems.

5. IS EXTENT OF PARTICIPATION IN PEER HELPING STABLE THROUGHOUT THE COURSE OF THE SCHOOL YEAR?

It was impossible, given the developmental nature of this study, to measure peer helping behavior accurately enough during the first week or two of school to assign students a rank. However, a ranking of helping behavior was developed a little over three months into the school year. A student's rank on helping in the spring was compared to this late-fall ranking. The majority of students did change their rank, but only slightly. These changes were not significant. An occasional student did make an exceptionally large change, but these students were the exception which proved the rule.

It would appear that within the early months of a school year students work out a system of relationships and assume roles which remain fairly constant throughout the year. A student whose behavior invites rejection from classmates will experience increasing difficulty changing roles the later it becomes in the school year. His classmates will establish patterns of response to his behavior which may change slower than his actual behavior. If new behaviors are tried and do not receive positive reinforcement from peers, they will be abandoned and the old, inappropriate behaviors resumed. Therefore, a teacher's efforts to modify peer interaction patterns will stand the greatest chance of success the earlier in the year they are initiated. (See the case study in the preceding chapter for an example of the ways in which inappropriate behavior may be modified.)

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6. WILL THERE BE ANY CHANGES BETWEEN THE BEGINNING AND END OF THE SCHOOL YEAR IN SCHOOL ATTITUDE, SOCIAL ACCEPTANCE BY PEERS, INFERRED SELF-CONCEPT AS LEARNER, OR PROFESSED SELF-CONCEPT?

A series of t-tests were employed to examine differences between the pre- and posttest scores on the various measures used in the evaluation of this program. Tables 3 and 4 in Appendix C summarize these analyses. There were no significant changes between the beginning and ending of school on social acceptance by peers, inferred learner self-concept, or professed self-concept. However, social acceptance and professed self-concept scores did increase over the course of the year.

While there were no significant differences between the pre- and posttest total school attitude scores, there was a significant increase on two of its factor scores. Attitudes toward self and peers both increased significantly.

7. WILL THERE BE ANY INTERACTIONS BETWEEN GRADE AND SEX AND SCHOOL ATTITUDE, SOCIAL ACCEPTANCE BY PEERS, INFERRED SELF-CONCEPT AS LEARNER, OR PROFESSED SELF-CONCEPT?

Because there were third, fourth, and fifth grade students within this room, questions were raised about the differences on the evaluation measures which might be attributable to grade level interacting with sex. A series of two-way analyses of variance were performed controlling for grade and sex. School attitude was the only measure which showed an interaction effect (see Tables 5 and 6 in Appendix C). A Tukey's post hoc test on the cell means of the pretest revealed that fourth grade males began the year with a significantly ($p < .05$) higher school attitude than did fourth grade females or third grade males; fifth and third grade females also had significantly ($p < .05$) higher school attitude than did the fourth grade females. Fourth grade males and fifth grade females led the class in school attitude.

This same pattern held throughout the year. Fourth grade females ended the year with the lowest school attitude and fourth grade males with the highest. The low school attitude score recorded for the category "fourth grade females" can be easily explained. There was only one fourth grade female in the room and she was a social isolate. This combination of factors made it very difficult for her to find an

acceptable role for herself within the room. This lack of belonging was then translated into low scores on the attitude and self-concept measures. The pattern of scores for this student increased somewhat during the year, but not enough to change her status vis-a-vis her classmates.

8. WILL SIBLING ORDER OF THE STUDENT BE RELATED TO EXTENT OF PARTICIPATION IN HELPING RELATIONSHIPS?

Since the children within this room ranged in age from 8 to 10, we had some interest in determining if sibling order as well as age had anything to do with helping behavior. All children within this room had siblings. Did their position among the other children in their families lead to varying rates of helping?

Because the number of children involved in this study was small (30), it is impossible to make generalizable conclusions based only on the behavior of students within this one classroom. Nevertheless, the trend found was interesting! There was a definite tendency, among the third and fifth graders, for the last child in a family to be a high helper. Over 50 percent of the high helpers in these two grades were last children. (There were not enough fourth graders in the room for a pattern to emerge among them.) It is possible that at home these children had generally been on the receiving end of help and enjoyed the opportunity to help others in turn. Alternatively, it is also possible that having received help at home they had had role models to copy in techniques of offering help.

We would like to add a ninth research question to our list. How much growth was there in reading during the year? We know that many people will be concerned about the academic progress students make in a classroom which on the surface may appear to have little structure. For the believers as well as the skeptics we did an analysis of growth in reading on the Slosson. The results are presented in Table 7 of Appendix C.

The recorded growth in reading probably underestimates real gains since many students exceeded the top level of the test and were working in materials with reading levels designed for tenth graders and above. Nevertheless, the reported gains made by these students could be expected to occur by chance only one time out of a thousand. Grade equivalent increases in reading were 1.83 for the total class, 1.49 for third graders, 1.66 for fourth graders, and 1.96 for fifth graders.

APPENDIX A

CLASSROOM INTERACTION BEHAVIORS

and

EVALUATION PROCESS

CLASSROOM INTERACTION BEHAVIORS

Helping Behaviors

Peer Relationships

Asks peers for help -

1. Asks another student for help with academic subject or class project.
2. Asks for clarification of assignment or information about an assignment from another student.
3. Asks another student for material retrieval (pen, pencil, etc.).

Provides help to peers -

1. Helps student nearby with academic work/impossible to tell who initiated interaction.
2. Volunteers academic help to another student.
3. Retrieves materials for other students at their request.
4. Helps other students handle social or physical environment at request of another student.
5. Helps other students handle social or physical environment on own initiative.
6. Helps other students with academic work at request of the student.
7. Provides information or clarification to another student on own initiative.
8. Defends another student from a challenge, accusation or threat from a third student.

Teacher-Pupil Relationships

1. Asks teacher for help with academic work.
2. Asks teacher for approval of work that has been done.
3. Asks teacher or other adult in room for clarification of assignment or for information.

9. Helps another student with academic work at request of teacher.
10. Retrieves materials for other students at request of teacher.

Other Types of Interaction

Peer Relationships

1. Works alone but at location close to other student(s).
2. Separates self from other students to work.
3. Interacts socially with those students near while working on projects (school assignments).
4. Shows work accomplished to other pupils for their reaction/not seeking help but positive regard.
5. Seeks physical contact with other students (likes to touch, rub, play with hair, etc.).
6. Challenges, accuses, or threatens another student.
7. Defends self from a challenge, accusation, or threat from another student.
8. Works cooperatively with other students on projects not academic (art, music, mechanical, etc.).
9. Wanders around the room looking at what others are doing, but not really stopping and becoming involved.
10. Runs errands for teacher and does things like erase board, open windows, etc., on own initiative.

Teacher-Pupil Relationships

1. Seeks physical contact with teacher (likes to touch, rub, play with hair, etc.).
2. Runs errands for teacher and does things like erase board, open windows, etc., at her request.

Demographic Characteristics of Student Interactions

Same-race interaction	Cross-race interaction
Same-sex interaction	Cross-sex interaction
Same-age interaction	Cross-age interaction

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EVALUATION PROCESS
PEER HELPING RELATIONSHIPS

Theoretical Basis	Inquiry Process	Instruments	Focus
Anthropological	Participant observation in classroom	Observation notes (daily)	Student interaction patterns
	Field notes of teacher	Teacher notes	Students and own reactions to the events of the day
Sociological	Attitudes toward school	Battle Student Attitude Scale (Form B)	Students
	Social acceptance	Ohio Social Acceptance Scale	Students
	Socioeconomic status	Warner's Revised Occupational Rating Scale	Parents
	Sibling order	Interview	Family
	Sex and race	Observations	Students
Psychological	Self-esteem	Coopersmith's Self-Esteem Inventory	Students
	Learner self-concept	Florida Key (completed by teacher)	Students
	Achievement	Slosson Teacher constructed inventories	Students

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APPENDIX B

FORMS FOR MONITORING AND EVALUATING PROGRESS

WEEKLY SCHEDULE

Date _____

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:30					
9:00					
9:30					
10:00					
10:30					
11:00					
11:30					
12:00	Lunch				
12:30					
1:00					
1:30					
Meetings					

NAME _____

DATES _____

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
MATH					
SPELLING					
CURSIVE					
WRITING					
BBR					
READ-A-THON					
LANG. ARTS					
ART					
MUSIC					
SPORTS					
RECESS					
S.R.A.					
CENTER					
TRIP					
SPECIAL PROJECT					
PEOPLE I HELPED					
COMMUNITY WORK EXPERIENCED					

THE BOOK I'M READING IS:

TITLE _____ AUTHOR _____

Name _____

Week of _____

Responsibilities:	Completed	Comments
Checklist		
Math		
Language Arts		
Reading		
Centers		

Acted responsibly during group times _____

Acted responsibly during quiet work times _____

Signature _____

Parents' Comments:

Signature _____

HOW DID IT GO TODAY? WERE THERE ANY ESPECIALLY GOOD THINGS ABOUT YOUR DAY OR ANYTHING PARTICULARLY FRUSTRATING?

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

HAVE A GREAT WEEKEND!

Week of _____

Helping Teacher _____

Please describe some of the activities you engaged in this week:

Which students did you work with? How did you help them?

Did you have any "especially positive" or "especially negative" experiences this week?

Are there any areas in which I can help you?

What do you have planned for the coming week?

APPENDIX C

STATISTICAL TABLES

TABLE 1

Rankings of Males on Helping, School Attitude, Social Acceptance, Self-Esteem, and Inferred Learner Self-Concept, Spring

Students	Rankings				
	Helping	School Attitude	Social Acceptance	Self-Esteem	Learner Self-Concept
1	13	14	8	14.5	7.5
2	9	8	4.5	6.33	12
3	15	15.5	10	12	11
4	12	12	12	13	15
5	4	6	14	5	5
6	8	3	1.5	9.33	3
7	10	9	9	9.33	2
8	5	10	1.5	6.33	6
9	14	5	11	1.33	13
10	11	1	13	4	9
11	1	7	6	9.33	7.5
12	7	2	1.5	6.33	4
13	2	4	7	1.33	1
14	16	11	15	1.33	16
15	3	13	16	14.5	10
16	6	15.5	3	16	14

$W = .43, p < .01$

TABLE 2

Rankings of Females on Helping, School Attitude, Social Acceptance, Self-Esteem, and Inferred Learner Self-Concept, Spring

Students	Rankings				
	Helping	School Attitude	Social Acceptance	Self-Esteem	Learner Self-Concept
1	11	13	12	14	13
2	5	6.33	11	13	4
3	2	10	2	11.5	3
4	13	14	14	11.5	10
5	7	9	6	7.25	5.33
6	4	5	7.5	7.25	11
7	12	12	13	7.25	12
8	7	6.33	3	6	1
9	1	6.33	5	4.5	5.33
10	10	11	9	4.5	9
11	6	4	4	2.5	2
12	3	2	10	7.25	8
13	14	3	7.5	2.5	14
14	9	1	1	1	5.33

$W = .50$, $p < .01$

TABLE 3

Comparison Pre- and Posttest Scores,
Social Acceptance, Inferred Learner Self-Concept,
and Professed Self-Concept

Social Acceptance	t = 1.800	
Mean score in September		2.204
Mean score in May		2.377
Florida Key (inferred learner self-concept)	t = 1.010	
Mean score in September		72.167
Mean score in May		70.833
Self-Esteem (professed self-concept)	t = 1.471	
Mean score in September		15.067
Mean score in May		16.433

TABLE 4

Comparison Pre- and Posttest Total and Factor Scores, School Attitude Scale

Total Score	t = 1.63	
Mean score in September		130.00
Mean score in May		134.87
Self	t = 3.23**	
Mean in September		24.30
Mean in May		26.96
Peers	t = 2.40*	
Mean in September		25.90
Mean in May		28.16
Teachers	t = 1.36	
Mean in September		44.00
Mean in May		45.60
School	t = .35	
Mean in September		16.43
Mean in May		16.63
Principal	t = .06	
Mean in September		18.93
Mean in May		18.90

*p < .05
**p < .01

TABLE 5

Analysis of Variance
School Attitude Pretest Scores
By Sex and Grade

Source	SS	df	MS	F
Sex				
at 3rd grade	1,269.36	1	1,269.36	5.58*
at 4th grade	2,553.80	1	2,553.80	11.22**
at 5th grade	540.32	1	540.32	2.37
Grade				
at male	3,554.31	2	1,777.16	7.81**
at female	1,744.71	2	872.36	3.83*
Sex x Grade	5,765.99	2	2,883.00	12.67
Within	5,460.63	24	227.53	

*p < .05
**p < .01

TABLE 6

Analysis of Variance
School Attitude Posttest Scores
By Sex and Grade

Source	SS	df	MS	F
Sex				
at 3rd grade	608.67	1	608.67	2.84
at 4th grade	6,624.80	1	6,624.80	30.95**
at 5th grade	289.29	1	289.29	1.35
Grade				
at male	4,161.24	2	2,080.62	9.72**
at female	4,538.96	2	2,269.48	10.60**
Sex x Grade	11,026.60	2	5,513.30	25.76**
Within	5,136.25	24	214.05	

**$p < .01$

TABLE 7

Comparison Pre- and Posttest Scores,
Slosson Reading Test

Total Class (n = 30)	t = 10.255**	
Mean grade equivalent, September	4.62	
Mean grade equivalent, May	6.45	
Growth in grade equivalents		1.83
Third Graders (n = 9)	t = 4.835**	
Mean grade equivalent, September	2.79	
Mean grade equivalent, May	4.28	
Growth in grade equivalents		1.49
Fourth Graders (n = 5)	t = 4.336*	
Mean grade equivalent, September	4.58	
Mean grade equivalent, May	6.24	
Growth in grade equivalents		1.66
Fifth Graders (n = 16)	t = 7.238**	
Mean grade equivalent, September	5.53	
Mean grade equivalent, May	7.49	
Growth in grade equivalents		1.96

*$p < .05$
**$p < .001$

APPENDIX D

EVALUATION INSTRUMENTS

BATTLE STUDENT ATTITUDE SCALE
Elementary Level
P. K. Yonge Laboratory School
University of Florida

Students of this school, like students of all schools, have different feelings about things. This booklet is for you to express your feelings toward your self, other students, your teachers, your principal, and your school as a whole. This is NOT a test. There are no "Right" or "Wrong" answers as such. EVERY ANSWER THAT TELLS HOW YOU FEEL IS A RIGHT ANSWER FOR YOU. By marking how you feel about each statement, you can help your school become a better school.

Directions: Two sets of directions are provided - one for marking on an answer sheet and the other for marking in this booklet.

1. Marking on an answer sheet: Please place your name, grade, date, and sex on the spaces provided on the top of the answer sheet.

Fill in Answer Space No. 1 if the statement is mostly true or true for you.

Fill in Answer Space No. 2 if the statement is about half-true and half-false for you.

Fill in Answer Space No. 3 if the statement is mostly-false or false for you.

2. Marking in this booklet: Please place your name, grade, date, and sex on the spaces provided at the bottom of this page.

Circle MT if the statement is mostly true or true for you.

Circle S if the statement is about half-true and half-false for you.

Circle MF if the statement is mostly-false or false for you.

NAME _____ GRADE _____

BOY _____ GIRL _____ TODAY'S DATE _____

BATTLE SCHOOL ATTITUDE SCALE - ELEMENTARY FORM

MT	S	MF	1.	It is very hard for me to meet new people or talk to my whole class.
MT	S	MF	2.	I feel like I need to make excuses lots of times.
MT	S	MF	3.	Sometimes I will change the way I act just to make someone else like me.
MT	S	MF	4.	I worry if I think someone may not like me.
MT	S	MF	5.	I don't think I can be of much help to other people.
MT	S	MF	6.	When I first meet someone, I want to know if they like me.
MT	S	MF	7.	I don't think I deserve the good things some people say about me.
MT	S	MF	8.	I am often afraid because of something I have done wrong.
MT	S	MF	9.	I am often afraid because of something I might do wrong.
MT	S	MF	10.	I could be happier if I were not afraid of some things I think or do.
MT	S	MF	11.	It is hard for me to go to parties and other large groups.
MT	S	MF	12.	When my feelings change from happy to sad or sad to happy, I do not know why.
MT	S	MF	13.	I don't like some of the people in my class.
MT	S	MF	14.	I feel I am left out of most things at school.
MT	S	MF	15.	Members of my class do not know each other very well.
MT	S	MF	16.	I feel unhappy a lot of the time.

MT	S	MF	17.	Many people at this school leave others out of activities in school.
MT	S	MF	18.	A few students at this school run everything.
MT	S	MF	19.	Many of the students at this school do not act their age.
MT	S	MF	20.	Many boys and girls do not feel they belong at this school.
MT	S	MF	21.	Not much is done to help new students feel welcome at this school.
MT	S	MF	22.	It is hard for me to really be interested in the things some of my friends do.
MT	S	MF	23.	Most students at this school don't try to help other students who are in trouble.
MT	S	MF	24.	When I am first getting to know others my own age, I compare myself with them to see who is better.
MT	S	MF	25.	I think that the teachers usually will not listen to student ideas.
MT	S	MF	26.	I feel that few of the teachers are willing to help one student at a time, that is to help a student individually.
MT	S	MF	27.	Some of the teachers favor girls more than boys.
MT	S	MF	28.	Some of the teachers favor boys more than girls.
MT	S	MF	29.	I feel that many of the teachers think I know less than I do know.
MT	S	MF	30.	It seems to me that some of the teachers often talk unkindly to students.
MT	S	MF	31.	It seems to me that several of the teachers are nervous and easily excited.

MT	S	MF	32.	Some of the teachers are always using words that are too big for me to understand.
MT	S	MF	33.	I believe that most of the teachers are too strict.
MT	S	MF	34.	The teachers expect too much of me.
MT	S	MF	35.	I believe I have a teacher who would give a higher grade because a student complimented him or her or did a favor for the teacher.
MT	S	MF	36.	I hate at least one of the teachers.
MT	S	MF	37.	I think that some of the teachers seem to feel that they are always right and the student is always wrong.
MT	S	MF	38.	I believe that some of the teachers try to make students afraid of them.
MT	S	MF	39.	It seems to me that some of the teachers are inclined to be "bossy".
MT	S	MF	40.	I feel that none of the teachers grade fairly.
MT	S	MF	41.	I believe that most of the teachers should be most pleasant and cheerful.
MT	S	MF	42.	I think that most of the teachers would rather not see and talk to me when school is out.
MT	S	MF	43.	I feel that the teachers do not want me to express my real opinion, thoughts, or ideas.
MT	S	MF	44.	I don't think the things I am learning in school will help me when I am an adult.
MT	S	MF	45.	Students don't get a chance to make friends in other rooms at this school.
MT	S	MF	46.	I believe there are too many rules in this school.
MT	S	MF	47.	Some students from special families get treated better than students from other families.

MT	S	MF	48.	The books and things we use in school are old and not up-to-date.
MT	S	MF	49.	I think things get torn up and treated badly at this school.
MT	S	MF	50.	My parents don't know very much about my classwork or this school.
MT	S	MF	51.	I feel that the Principal does not like suggestions from the students.
MT	S	MF	52.	I think the Principal is too strict.
MT	S	MF	53.	I would not go to the Principal's office to talk to him unless I was made to go.
MT	S	MF	54.	I don't think the Principal would want to help me with a personal problem.
MT	S	MF	55.	I believe this school would run just as well without our Principal.
MT	S	MF	56.	I don't know what our Principal does to make this school run better.
MT	S	MF	57.	There are many things about my Principal that I wish he or she would improve.
MT	S	MF	58.	I believe this school could be run much better.

SELF ESTEEM INVENTORY (SEI) - Stanley Coopersmith
University of California, Davis
(Rev. P. K. Yonge 1972)

Please mark each statement in the following way:

If the statement describes how you usually feel, put a check ( ) in the column "LIKE ME".

If the statement does not describe how you usually feel, put a check ( ) in the column "UNLIKE ME".

Answer All Questions

There are no right or wrong answers.

	LIKE ME	UNLIKE ME
Example: I'm a hard worker.		
1. I OFTEN WISH I WERE SOMEONE ELSE.		
2. I FIND IT VERY HARD TO TALK IN FRONT OF THE CLASS.		
3. THERE ARE LOTS OF THINGS ABOUT MYSELF I'D CHANGE IF I COULD.		
4. I CAN MAKE UP MY MIND WITHOUT TOO MUCH TROUBLE.		
5. PEOPLE THINK IT IS FUN TO BE WITH ME.		
6. I GET UPSET EASILY AT HOME.		

		LIKE ME	UNLIKE ME
7.	IT TAKES ME A LONG TIME TO GET USED TO ANYTHING NEW.		
8.	KIDS MY OWN AGE LIKE ME.		
9.	MY PARENTS USUALLY CONSIDER MY FEELINGS.		
10.	I GIVE IN VERY EASILY.		
11.	MY PARENTS EXPECT TOO MUCH OF ME.		
12.	IT'S PRETTY TOUGH TO BE ME.		
13.	I HAVE LOTS OF WORRIES.		
14.	KIDS USUALLY FOLLOW MY IDEAS.		
15.	I DON'T THINK I'M VERY GOOD.		
16.	THERE ARE MANY TIMES I'M VERY UNHAPPY AT HOME.		
17.	I OFTEN FEEL UPSET AT SCHOOL.		
18.	I'M NOT AS NICE LOOKING AS MOST PEOPLE.		
19.	IF I HAVE SOMETHING TO SAY, I USUALLY SAY IT.		
20.	MY PARENTS UNDERSTAND ME.		

		LIKE ME	UNLIKE ME
21.	PEOPLE LIKE OTHERS BETTER THAN THEY LIKE ME.		
22.	MY PARENTS USUALLY TRY TO MAKE ME DO THINGS.		
23.	I OFTEN GET DISCOURAGED IN SCHOOL.		
24.	THINGS USUALLY DON'T BOTHER ME.		
25.	PEOPLE CAN'T DEPEND ON ME.		

OHIO SOCIAL ACCEPTANCE SCALE

On another sheet you will find listed all the names of the others in the group. On a separate answer sheet, place one of the following numbers which tells which paragraph best describes how you feel about each person in the group. To start, place a 3 by your own name.

1. A BEST FRIEND IN THIS GROUP.
   I would like to have this person as one of my best friends and spend a lot of time with him. I would tell him some of my secrets and would do everything I could to help this person.

2. MY OTHER FRIENDS.
   I would enjoy working and being with this person and would invite him to parties and picnics with other friends. I would like working with this person and would like to be with him often. I want this person to be one of my friends.

3. I DO NOT KNOW THIS PERSON VERY WELL.
   I would be willing to be in a club or on a committee with this person, but he is not one of my friends. I think he is all right.

4. DON'T CARE FOR THEM.
   I may say, "Hello," when I meet this person, but I would not like being with this person unless I didn't have anything else to do. I don't care for this person much.

5. I DON'T LIKE THEM.
   I speak to this person only when I have to. I do not like being with this person and would rather not talk to this person.

FLORIDA KEY

Dr. William W. Purkey Dr. Bob N. Cage
Dr. William Graves
University of Florida January 1971

TEACHER FORM

This scale is to assist you, the teacher, in evaluating how the student perceives his or her "learner" self. Please select one of the following answers and record the number in the blank space.

NEVER: 0	VERY SELDOM: 1	ONCE IN AWHILE: 2	OCCASIONALLY: 3	FAIRLY OFTEN: 4	VERY OFTEN: 5

Name of Student to be Evaluated Teacher Date

Compared with other students his age, does this student:

1. get along with other students? _____
2. get along with the teacher? _____
3. keep calm when things go wrong? _____
4. say good things about his school? _____
5. tell the truth about his school work? _____

Relating _____

6. speak up for his own ideas? _____
7. offer to speak in front of the class? _____
8. offer to answer questions in class? _____
9. ask meaningful questions in class? _____
10. look people in the eye? _____
11. talk to others about his school work? _____
12. join in school activities? _____

Asserting _____

13. seek out new things to do in school on his own? _____
14. offer to do extra work in school? _____

Investing _____

15. finish his school work? ____
16. pay attention to class activities? ____
17. do his school work carefully? ____
18. read in class? ____

Accomplishing ____

TOTAL _____

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